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NEWSLETTER

Indiana State Department of Health

Epidemiology Resource Center
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Tuberculosis in Indiana, 2003

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ISDH TB Control Program

Wednesday, March 24 is World TB Day. It was on this day in 1882 that German microbiologist Robert Koch discovered *Mycobacterium tuberculosis*, the bacteria that causes TB. Tuberculosis continues to be one of the deadliest diseases in the world, with 8 million new cases and 3 million deaths reported worldwide each year. Approximately 95 percent of TB cases occur in developing countries where there are few resources to insure adequate treatment and where HIV infection is common. TB is the number one killer of AIDS patients in world.

Despite a dramatic overall decline in TB cases since the mid-1950s, Indiana cases have increased in each of the last two years while almost every other state continues to experience a decline. During 2003, 143 new cases of TB were reported to the Indiana State Department of Health (ISDH). Tuberculosis was reported by 40 (44%) of the 92 counties. The five counties that reported five or more cases accounted for 63% of the total. Long-term trends and new cases over the past 10 years are shown in figures 1 and 2 respectively.

Figure 1.

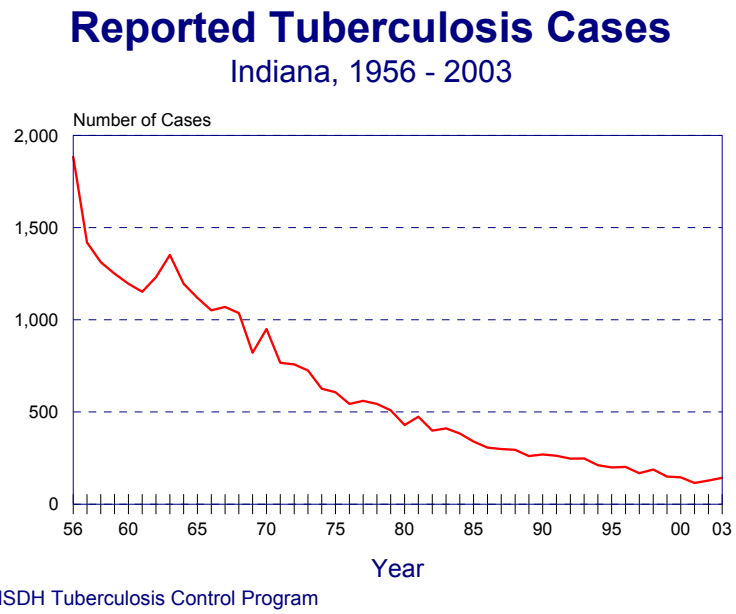

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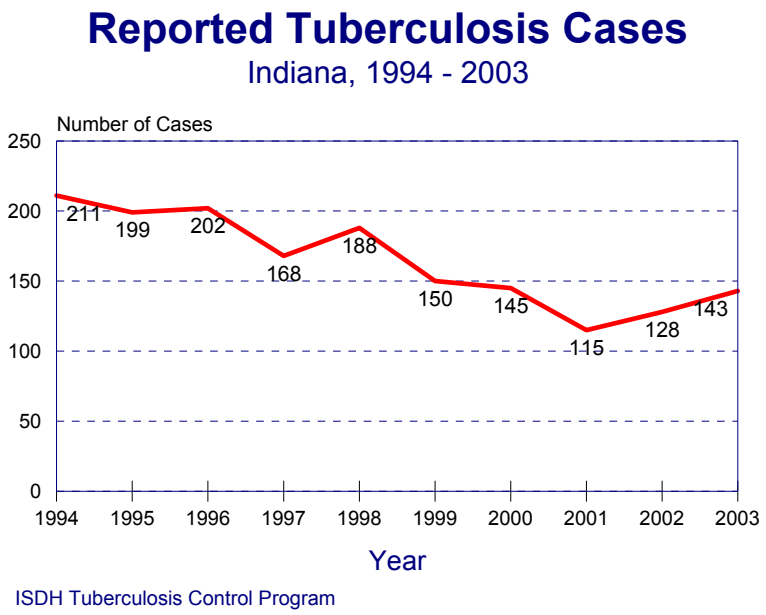
Figure 2.



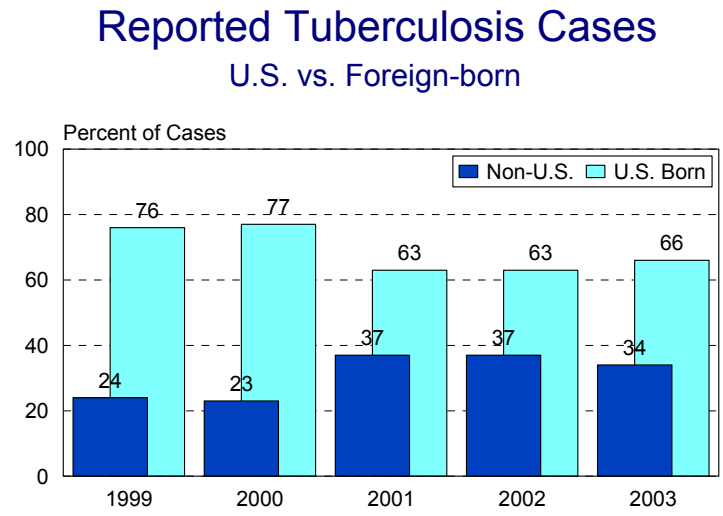
The majority of TB cases develop in persons who were infected in the past. Approximately 10 percent of persons infected with TB will develop active disease at some point in their lives, but it is not possible to predict who will become ill or when. Other factors also contributed to the increase.

- **Continued transmission among social contacts**. Allen County experienced an increase in new cases, with 16 new cases reported in 2003, compared to 10 in 2002. Six of these cases had epidemiological links to a single source case in 2001. The situation has been complicated by the reluctance of the patients to name all their contacts. The ones who were identified either failed to complete preventive therapy or refused treatment. Drug use was common in this group of cases.

- **An increase in the number of clinical cases of TB disease.** Not all cases of TB are diagnosed based on laboratory confirmation. Fifteen percent of the new cases in 2003 did not have laboratory confirmation, but met the Centers for Disease Control's clinical case definition for tuberculosis. The number of clinical cases in Marion County increased from 5 in 2002 to 16 in 2003. This indicates that these patients are being diagnosed sooner rather than later.

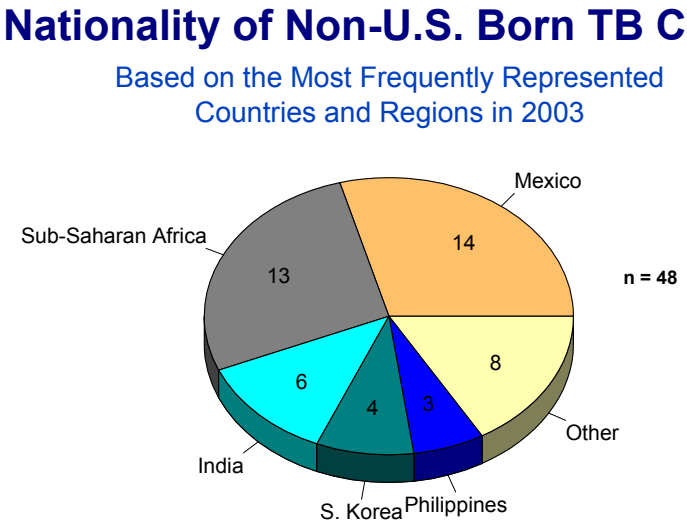
- **An increase in the number of new cases among the foreign-born** Marion County's cases increased from 31 in 2002 to 51 in 2003. This was due primarily due to a 117% increase in the number of foreign-born cases and an increase in the number of cases among the elderly. None of these cases was outbreak-related. The foreign-born population continues to make up one-third of all the state's new cases. Figure 3 shows the percentage of TB cases among the foreign-born versus U.S.-born. Figure 4 shows where the majority of the foreign-born came from.

Figure 3.



ISDH Tuberculosis Control Program

Figure 4.



ISDH Tuberculosis Control Program

Maintaining the decline in new TB cases hinges on the continued implementation of TB control core activities. The most important activity is the prompt identification and treatment of new TB cases and completion of therapy, followed by the identification and treatment of infected contacts and targeted testing and treatment of other persons likely to be infected. The last group includes persons born in countries where TB is common and persons belonging to socio-economic groups who tend to live and socialize in settings where TB is transmitted. This group includes injection drug users, other substance abusers, and the homeless.

Finally, these activities are incorporated into a client-centered patient management system in which the local health department provides case management and physicians in private practice provide medical care. The ISDH TB Drug Program provides drugs at no cost to the patient. The state Mycobacteriology Laboratory provides specimen processing, culture identification and drug susceptibility testing services at no cost to the patient or referring client laboratories. This integrated approach, combined with the use of directly observed therapy, helps to ensure that all TB patients are being managed appropriately and will complete treatment.

References:

1. Indiana State Department of Health Tuberculosis Information Management System database.

2. Institute of Medicine. *Ending Neglect: The Elimination of Tuberculosis in the United States.* 2000.

The ISDH Publishes Guidance for Control and Management of Specific Antibiotic Resistant Organisms

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ISDH Epidemiology Resource Center

The Indiana State Department of Health (ISDH) recently published the ***Guideline for the Prevention and Management of Methicillin-Resistant Staphylococcus aureus (MRSA), Vancomycin-Resistant Enterococcus (VRE),*** and ***Vancomycin-Intermediate/Resistant Staphylococcus aureus in Indiana Health Care***. This guide was developed collaboratively by the Indiana Chapter of the Association for Professionals in Infection Control and Epidemiology and the ISDH.

This document provides guidance to any health care facility, agency, or office in Indiana regarding infection control practices when caring for individuals with MRSA, VRE, and vancomycin-intermediate/resistant *Staphylococcus aureus* (VISA/VRSA). The document is written as a guide to be utilized in developing infection control policies in all health care settings.

Over the past two decades, the control and management of antibiotic resistant organisms has been a major concern for Indiana infection control professionals in both hospitals and long-term care facilities. The control of both MRSA and VRE has been a challenge for Indiana facilities. Although there have been no reported cases of VISA/VRSA in Indiana, eight (8) reports of VISA are documented in the United States, along with two (2) reports of VRSA.

In addition, the epidemiology of MRSA is changing. MRSA was once largely confined to hospitals and long-term care facilities but is now emerging in the community. Currently, the community strains tend to be susceptible to several antibiotic classes but are resistant to beta-lactam antibiotics. Typing of strains by pulse-field gel electrophoresis suggests that community strains are distinctive from strains found in hospitals and long-term care facilities. Thus, the concern of transmission of multi-drug resistant organisms (MDRO) is no longer an exclusive issue of hospitals and long-term care facilities. This guide was developed also for use by home care agencies, physicians, and other health care providers, in addition to hospitals and long term care facilities.

Highlights of the document include:

- MRSA, VRE, VISA/VRSA and reporting requirements in Indiana
- Appropriate antimicrobial therapy
- Surveillance of MRSA, VRE, and VISA/VRSA
- Microbiology practices
- Admission, discharge, and transfer of patients with MRSA, VRE, and VISA/VRSA
- Infection control recommendations
- Indications for decolonization
- Outbreak management
- Education of health care workers about MRSA, VRE, and VISA/VRSA
- Precautions for visitors
- Precautions for caregivers in the home

The ISDH wishes to recognize members of the Indiana Chapter of the Association for Professionals in Infection Control and Epidemiology for their collaboration in the development of this valuable guideline. Indiana health care entities are encouraged to review the document and utilize the information in the development of policies and procedures addressing the control of these resistant organisms. Developing sound policies is an important step in combating the spread of these resistant organisms in Indiana. Please visit the following web site to obtain more information:

http://www.statehealth.in.gov/professional/pmaoariihc04.htm.

Information from the Centers for Disease Control and Prevention (CDC) about these resistant organisms is available at http://www.cdc.gov/ncidod/hip/Aresist/aresist.htm.

Tick Testing to Resume

Dr. Robert Pinger, Chair
Department of Physiology & Health Science
Ball State University

The Indiana State Department of Health and the Public Health Entomology Laboratory at Ball State University are pleased to announce that tick identification and testing will once again be available to citizens of Indiana during the 2004 tick season. Ticks may be submitted via mail or other shipping arrangement to:

Public Health Entomology Laboratory
Department of Physiology and Health Science
Ball State University
Muncie, IN 47306-0511

(The building room number for Fed-Ex delivery is the
Cooper Life Science Building, Room CL 325).
The telephone number is (765) 285-1504.

Guidelines for Submitting Ticks

Ticks should be sent as promptly as possible to increase the likelihood that they arrive at the laboratory in good condition. **Only ticks that were attached to humans** will be tested for disease, although all ticks submitted will be identified. Ticks should be placed in a sealed vial with one-inch long blade of grass (for moisture). Information to be submitted with the tick should include: Name of person submitting the tick, date and location (including county) where the tick was collected, the name of the person to whom the tick was attached, and where the results should be sent.

(Note: Tick identification and testing results **should not be considered diagnostic tools**; they are for confirmatory use only. Medical treatment should **not** be delayed in order to await these test results).

Training Room

Public Health Nurses' Training Returns!

Mark your calendars! The ISDH is offering public health nurse training on Friday, April 23, from 9:00 a.m. to 4:00 p.m. at the Hampton Inn in downtown Indianapolis. Training will be held in the Maryland Room of the hotel. This is the same training offered last November, so if you attended that training, this will have mostly the same information. Agenda items include:

- Communicable Disease Rule
- Case Investigation
- Hepatitis C Reporting
- Vaccine Preventable Diseases
- Respiratory Disease Update
- Lab Samples and Testing
- Syndromic Surveillance
- Confidentiality
- Information Release to Media
- Cultural Competancy
- Methicillin Resistant *Staphylococcus aureus*
- Hepatitis B

There is no registration fee for this training. ISDH will reimburse participants for mileage and lodging according to the following:

1. Keep a copy of all receipts and record your mileage.
2. Submit a copy of all receipts to your county and either fax or mail a copy of receipts and your voucher to ISDH.
3. ISDH will reimburse the county and the county will reimburse you.
4. ISDH will not reimburse for tips given to baggage carriers.
5. Please include the departure time from your work station and arrival time back to your work station or home so that ISDH can reimburse for meals.
6. Lodging must show a zero balance.
7. You must travel 50 miles or more from your official station for ISDH to reimburse lodging costs.
8. Follow all state rules and regulations for travel.

All participants will receive a copy of the reimbursement guidelines and a travel voucher at the conference.

Please contact Pam Pontones at 317-233-7009 or, preferably, at ppontones@isdh.state.in.us by Monday, April 19 if you would like to attend the conference.

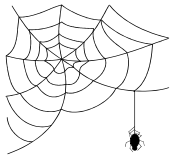
New Foodborne Illness Investigation Manual and Training Coming Soon!

The second edition of the Foodborne Illness Investigation Reference Manual will be available this spring for local health departments. In addition to an extensively revised text, the manual will also include updated contact information, charts, forms, and references. Two copies of the manual will be sent to each local health department, with additional copies available by request while supplies last.

Case investigation forms used by local health departments to investigate cases of reportable enteric diseases have also been updated and will be available on the ISDH website (www.statehealth.in.gov/) for easier access. "Quick Facts" fliers available on the ISDH website on various enteric diseases will also be updated or added, and will also be available in Spanish.

Representatives from the ISDH Epidemiology Resource Center and Food Protection Program will conduct foodborne illness investigation training after the manuals have been distributed. The training will include presentations on disease agents, surveillance, foodborne complaints, epidemiological investigation, and environmental investigation. The training will conclude with a tabletop exercise based on an actual outbreak. There will be no registration fee for this one-day training. Training will be offered at the following sites: Michigan City, Fort Wayne, Indianapolis, Jasper, and Scottsburg. Information regarding registration, locations, dates, and times will be provided at a later date.

Watch Groupwise and future issues of the Indiana Epidemiology Newsletter for more details!



Wonderful Wide Web Sites

ISDH Data Reports Available

The ISDH Epidemiology Resource Center has the following data reports and the Indiana Epidemiology Newsletter available on the ISDH Web Page:

http://www.statehealth.in.gov/dataandstats/epidem/epinews_index.htm

Indiana Cancer Incidence Report (1990, 95,96, 97)

Indiana Cancer Mortality Report (1990-94, 1992-96)

Indiana Health Behavior Risk Factors (1995-96, 97, 98, 99, 2000, 2001)

Indiana Health Behavior Rish Factors (BRFSS) Newsletter

Indiana Hospital Consumer Guide (1996)

Public, Hospital Discharge Data (1999, 2000, 2001)

Indiana Maternal & Child Health Outcomes & Performance Measures (1988-97, 1989-98, 1990-99, 1991-2000)

Indiana Marriage Report (1995, 97, 98, 99, 2000)

Indiana Mortality Report (1999, 2000)

Indiana Natality Report (1995, 96, 97, 98, 99, 2000, Provisional 2001)

Indiana Induced Termination of Pregnancy Report (1998, 99, 2000)

Indiana Infectious Diseases Report (2000)

Former Indiana Report of Diseases of Public Health Interest (1996, 97, 98, 99)

HIV Disease Summary

Information as of February 29, 2004 (based on 2000 population of 6,080,485)

HIV - without AIDS to date:

349	New HIV cases from March 2003 thru February 2004	12-month incidence	5.74 cases/100,000
3,804	Total HIV-positive, alive and without AIDS on February 29, 2004	Point prevalence	62.57 cases/100,000

AIDS cases to date:

447	New AIDS cases from March 2003 thru February 2004	12-month incidence	7.35 cases/100,000
3,661	Total AIDS cases, alive on February 29, 2004	Point prevalence	60.21 cases/100,000
7,466	Total AIDS cases, cumulative (alive and dead)		

REPORTED CASES of selected notifiable diseases

Disease	Cases Reported in February *MMWR* Week 6-9		Cumulative Cases Reported January - February *MMWR* Weeks 1-9	
	2003	2004	2003	2004
Campylobacteriosis	9	25	21	32
Chlamydia	1,310	1,506	3,093	3,105
E. coli O157:H7	3	1	3	4
Hepatitis A	4	0	4	4
Hepatitis B	0	2	0	2
Invasive Drug Resistant *S. pneumoniae* (DRSP)	11	15	11	25
Gonorrhea	514	493	1,193	1,145
Legionellosis	1	2	1	2
Lyme Disease	1	0	2	0
Measles	0	0	0	0
Meningococcal, invasive	1	3	4	5
Pertussis	3	1	3	1
Rocky Mountain Spotted Fever	0	0	0	0
Salmonellosis	20	24	27	36
Shigellosis	5	5	9	7
Syphilis (Primary and Secondary)	2	2	6	9
Tuberculosis	11	13	21	26
Animal Rabies	2 (bats)	0	2 (bats)	0

For information on reporting of communicable diseases in Indiana, call the *ISDH Epidemiology Resource Center* at (317) 233-7665.

Indiana
Epidemiology
Newsletter

The *Indiana Epidemiology Newsletter* is published by the Indiana State Department of Health to provide epidemiologic information to Indiana health professionals and to the public health community.